

WHAT IS CLAIMED IS:

1. An apparatus for testing a circuit assembly including a plurality of test pads comprising:

a test fixture base comprising a plurality of conductive pins having contact surfaces defining a first plane;

a test fixture plate in a plane substantially parallel to said first plane, comprising a plurality of compliant pressure pins, the compliant pressure pins substantially aligned with the conductive pins;

each conductive pin having a main pin axis and a contact surface for contacting a pad on the circuit assembly, said main pin axis substantially normal to the circuit assembly;

each compliant pressure pin having a main pressure pin axis and a pressure surface, said compliant pressure pin having a resilient compression element,

wherein the pressure surfaces and the respective contact surfaces are moveable in relation to each other to force the circuit assembly pad onto the contact surface of said conductive pins.

2. A test apparatus according to claim 1 wherein said test fixture base has a maximum of three conductive pins.
3. A test apparatus according to claim 1 wherein said resilient compression element comprises a spring.
4. A test apparatus according to claim 1 wherein said resilient compression element comprises rubber.

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5. A test apparatus according to claim 1 wherein each conductive pin comprises a metal selected from the group consisting of brass, copper, nickel, silver, and gold.
6. A test apparatus according to claim 1 wherein each conductive pin comprises a cylinder.
7. A test apparatus according to claim 1 wherein each conductive pin comprises a plurality of cylinders forming a plurality of shoulders for locating said conductive pin in a test fixture base.
8. A test apparatus according to claim 1 wherein said conductive pin has a resistance in the range of .1 to .5 milliohms.
9. A test apparatus according to claim 1 wherein said conductive pin has an inductance in the range of 2 to 10 nanohenrys.
10. A method for testing a circuit assembly having a plurality of test pads which comprises:
- (a) contacting a plurality of conductive test pins to corresponding test pads of the circuit assembly;
 - (b) pressing the circuit assembly test pads against the conductive test pins by a plurality of compliant pressure pins, each compliant pressure pin applying force to the assembly substantially in line with a corresponding test pin; and
 - (c) applying a test current to the circuit assembly through the test pins.
11. The method of claim 10 wherein each of the conductive test pins is a solid metal test pin.
12. The method of claim 10 wherein: the test circuit assembly is supported on a maximum of three conductive test pins, said conductive test pins establishing the plane in which the circuit assembly resides.

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